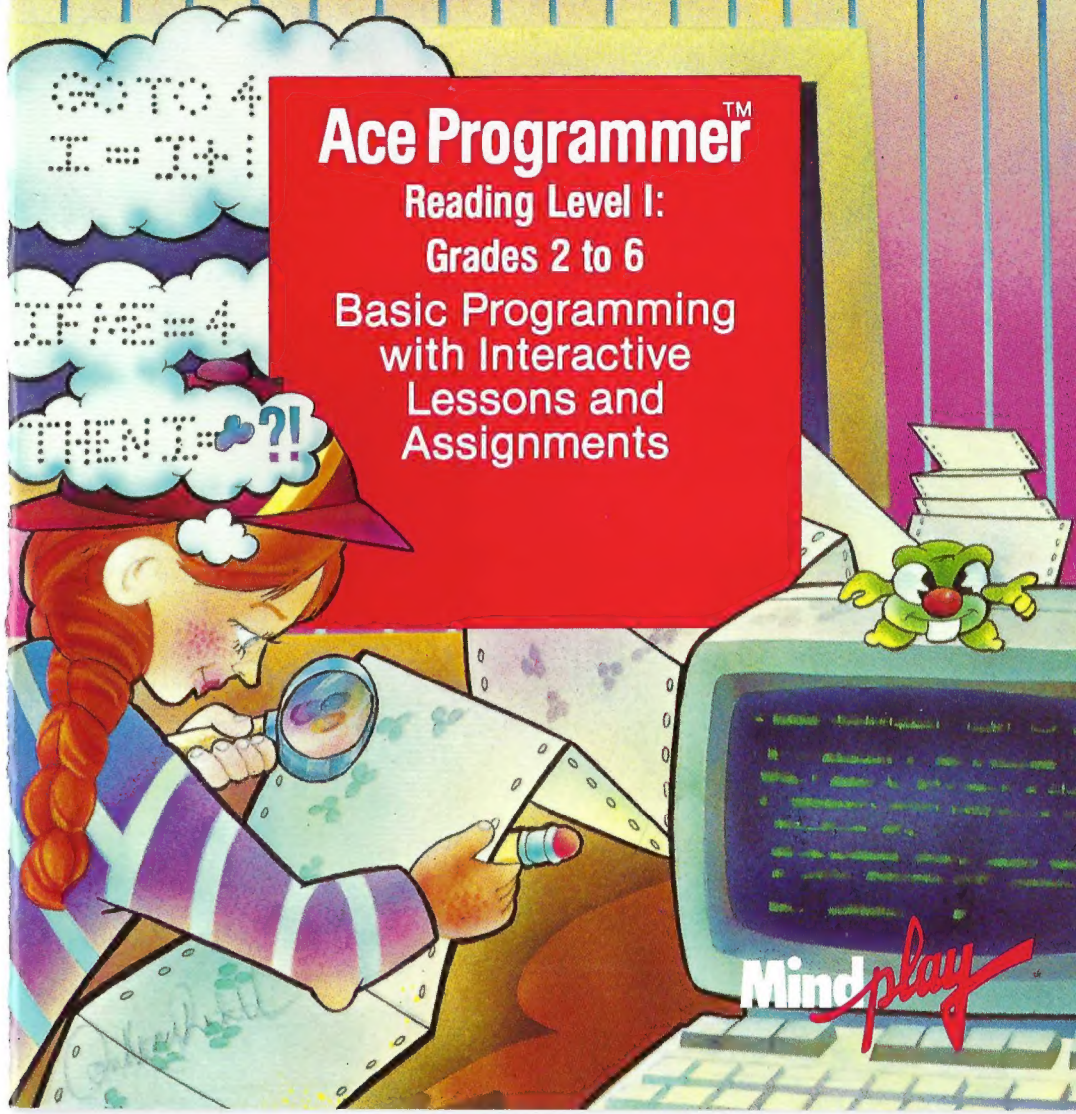

Ace Programmer™

Reading Level I: Grades 2 to 6

Basic Programming with Interactive Lessons and Assignments

Mindplay

Mindplay®

METHODS & SOLUTIONS, INC.
STONEHAM, MA 02180

READING LEVEL 1

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INTRODUCTION TO ACE PROGRAMMER™

Ace Programmer™ is one of many MindPlay® games now available for use in the home and classroom. Each MindPlay® game is designed for independent learning that is challenging and exciting. Ace Programmer™--and every MindPlay® program--features Challenge Upgrade™ to let you adjust lessons to fit individual needs.

Ace Programmer™ offers:

- 35 interactive lessons for learning to program in BASIC
- 35 special assignments for practice and reinforcement
- Room to add additional practice assignments

- Record keeping for up to 32 users
- A "Bookmark" to check where you left off
- Text speed and sound options
- A "Teacher Lock" for utilities.

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GETTING STARTED

1. Insert the Ace Programmer™ disk into the disk drive (label facing up) and close the door.

2. Turn on the computer and monitor. When the Menu appears, you will be ready to play.

NOTICE: NEVER INSERT OR REMOVE THE DISK FROM THE DISK DRIVE WHEN THE RED LIGHT ON THE DISK DRIVE IS ON.

NEVER TURN THE COMPUTER OFF WHEN THE RED LIGHT ON THE DISK DRIVE IS ON.

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PLAYING ACE PROGRAMMER™

Ace Programmer™ begins by asking your name. Type in your name exactly the same way each time you work on the program.

Choosing from the Main Menu:

Move the white highlight to the option on the menu you want by pressing the Space Bar. Then press RETURN to enter your choice.

Learn

Introduction is the name of the first Ace Programmer™ lesson. If you pick another lesson, that name will appear next to Learn.

Pick Lesson

Press RETURN when Pick Lesson is highlighted to choose from the list of lessons.

Notice that the "N" key lets you see more lessons in the program. Asterisks (*) in front of lesson numbers tell you which lessons you have completed.

Use the Space Bar and the RETURN key to select the lesson you would like to begin with. The name of the lesson will automatically appear next to the Learn option on the Main Menu.

Instructions

Choose this option to see on-screen instructions.

Play Space

Once you have completed a lesson, or several lessons, you should practice your new skills by selecting the Play Space option. Choose the lesson you wish to practice from the Play Space file displayed on the screen. On-screen directions will take you to the practice assignments in the Play Space.

Challenge Upgrade

The Challenge Upgrade Menu lets you customize Ace Programmer™. Once the Teacher Lock is selected, the password will be needed to use Challenge Upgrade™. (See Challenge Upgrade on page 6 .)

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USING THE PLAY SPACE

The Play Space gives you assignments to practice your new skills. Follow screen directions to select your lesson and to go to the Play Space on the reverse side of the disk.

Choose the Play Space assignment you want by the lesson name. An asterisk (*) in front of the lesson means that you completed that lesson.

Remember to use CAPITAL LETTERS when you are programming.

If you have a printer you can make printed copies of the program you write in the Play Space by typing the following:

PR#1 <RETURN>

(1 indicates the number of the printer slot. If your printer is in slot 2 you type PR#2).

LIST <RETURN>

To return to the program, you will need to turn the disk back over and reboot (restart) the program.

Formatting Data Disks

You can save your Play Space programs onto a data disk. Follow these steps to prepare a data disk:

1. Go to the Play Space as if you wanted to practice a lesson.

2. When the cursor appears to tell you to enter your program, type:

IN#6 <RETURN>.

3. The screen will prompt you to put in a data disk. Use a new blank disk. **IMPORTANT: If there is anything on the data disk, it will be erased.**

4. Then follow screen directions.

■

CHALLENGE UPGRADE™

Use the Space Bar and RETURN to select Challenge Upgrade™ options.

Text Speed : Very Slow/ Slow/ Medium/ Fast/Very Fast

The speed of the text appearing on screen during lessons can be set to match reading comfort.

Sound: ON/OFF

Sound may be turned OFF if it disturbs others.

Teacher Lock: ON/OFF

When used in a classroom, the teacher may put a lock on Challenge Upgrade™. A password is assigned when you turn the lock ON. Students will not be able to use any of the options in Challenge Upgrade™.

Bookmark

Use the Bookmark to view the names of players and what they last worked on. The Space Bar and RETURN key are used to select a particular player and view the lessons. An asterisk before a lesson number indicates the lesson has been completed.

Assignment

Select Assignment to view, add, delete and edit your Custom Assignments for the Play Space portion of the program.

Assignment Menu Options

View Assignments

Select the lesson you would like to look at. (The number in parentheses at the right of each lesson indicates the number of Custom Assignments in memory.) The screen will display the Standard and the Custom Assignments for that lesson. As you press the Space Bar, each assignment for that lesson will appear.

Add Assignments

You will be able to add many assignments for each lesson. When the disk is completely filled, simply edit out old assignments to make room for new ones.

To add a custom assignment, first select the lesson name. The Add Assignment screen with four empty lines will appear. Type in your assignment.

Edit Assignment

Follow screen directions to make changes in Custom Assignments.

Delete Assignments

Follow screen directions to remove Custom Assignments.

Active Questions: Standard/Custom

Choose Standard for MindPlay assignments. These are the pre-written assignments for use in the Play Space.

Choose Custom to activate the Custom Assignments you have added to the program. If you accidentally select Custom when there are no Custom Assignments, the program will automatically use MindPlay assignments.

Solutions: ON/OFF

Answers to Play Space assignments are available for MindPlay (Standard) assignments.

Choose ON to allow players to see the answers to their Play Space assignments.

Choose OFF if you do not want players to see the solution to their assignments.

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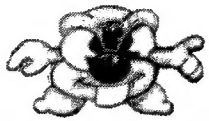

LESSON GUIDE

The following is a list of Ace Programmer's lessons along with a short description of the lesson objective and any new terms or commands introduced in the lesson.

Lesson 1 Introduction

Object: Learning to communicate with the computer.
Terms: BASIC, RETURN key, Cursor, Prompt, Command, Statement

Lesson 2 Printing Numbers

Object: Using the Print command with numbers.
Terms: Print, + for addition, - for subtraction, * for multiplication, / for division

Lesson 3 Printing Words

Object: Using quotation marks with the Print command to print words.
Terms: Print

Lesson 4 Fixing Mistakes

Object: Using the arrow keys to correct errors.
Terms: Arrow keys, Syntax Error

Lesson 5 The Program

Object: To learn what a program is; the difference between immediate and deferred execution.
Terms: Program, Execution, Lines, Line Numbers

Lesson 6 The Run Command

Object: Using the Run command to execute a program.
Terms: Run

Lesson 7 The Rem Command
The List Command

Object: Using the Rem command to make remarks. Using the List command to see programs in memory.
Terms: Rem, List

Lesson 8 The New Command

Object: Using the New command to erase programs from memory.
Terms: New

Lesson 9 The Home Command

Object: Using the Home command to clean up the screen.
Terms: Home

Lesson 10 The Save Command

Object: Using the Save command to save programs for later use.
Terms: Save, Disk, Naming the program

Lesson 11 The Load Command

Object: Using the Load command to call up programs that have been "saved."
Terms; Load

Lesson 12 Insert Lines

Object: To add new lines to a program; to replace a line.
Terms: Insert

Lesson 13 Delete Lines

Object: To remove lines from a program; to use Control-X to cancel line changes.
Terms: Delete, Control-X

Lesson 14 Extra Spaces

Object: To see how extra spaces within a program are viewed by the computer.
Terms: Outside of quotes

Lesson 15 The End Command

Object: Using the End command inside a program.
Terms: End

Lesson 16 The Goto Command

Object: Using the Goto command in a program.
Terms: Goto, Loop, Infinite Loop

Lesson 17 Stopping a Program

Object: Using Control-C to stop program execution.
Terms: Control-C, ?Undef'd Statement Error

Lesson 18 More Printing

Object: Using the semi-colon at the end of a print statement.

Lesson 19 Flash and Inverse Commands

Object: Using special commands for interesting printing.
Terms: Flash, Inverse, Normal

Lesson 20 Variables

Object: Understanding variables; rules for naming variables.
Terms: Variables, Numeric Variables, String Variables

Lesson 21 The Let Command

Object: Using the Let command to assign values to variables.
Terms: Let

Lesson 22 String Variables

Object: Using the dollar sign to make string variables.
Terms: String Variables

Lesson 23 The Input Command

Object: Getting the computer to ask questions in a program.
Terms: Input

Lesson 24 Branching

Object: Understanding how computers use branching.
Terms: Branching

Lesson 25 The If-Then Command

Object: Using the If-Then command for branching; symbols used (<,>,=).
Terms: If-Then, less than, greater than, equal to, less than or equal to, greater than or equal to, not equal to

Lesson 26 The For-Next Command

Object: Using For-Next for loops.
Terms; For-Next

Lesson 27 Beep and Delay Loops

Object: Making the computer "beep;" using Delay Loops.
Terms: For-Next; CHR$ (7)

Lesson 28 More on For-Next

Object: Using the Step command to count in incremental values not equal to one.
Terms: Step command, counting backwards

Lesson 29 Tabs

Object: Using HTab and VTab commands.
Terms: HTab, VTab, Illegal Quantity Error

Lesson 30 Lores Graphics

Object: To draw on the computer in Lores Graphics.
Terms: Graphics, low resolution; Lores commands: GR, PLOT, HLIN, VLIN, COLOR

Lesson 31 Hires Graphics

Object: To draw using Hires Graphics.
Terms: High resolution; Hires commands: HGR, HCOLOR, HPLOT

Lesson 32 Shortcuts

Object: To learn shortcuts for the Print and Let commands; putting several statements on one line.

Lesson 33 Functions

Object: To use built-in functions for getting integers, random numbers, and random whole numbers.
Terms: Integer function (INT), Random function (RND)

Lesson 34 Formatting

Object: To be able to prepare a new disk for programming and data files.
Terms: Format

Lesson 35 Catalog

Object: Using a disk's catalog.
Terms: Catalog

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TO THE EDUCATOR

Ace Programmer™ is designed to teach BASIC programming skills. The series of lessons begins with an introduction to using the computer. Each lesson builds on the previous lesson until all the fundamentals of programming are covered. This is a highly interactive program. It instructs students, gives examples and then gives students a chance to try their hand at it in a structured setting. When students make a mistake, screen prompts will help. Students will never find themselves lost.

Additional practice assignments are available in the Play Space of Ace Programmer™. In addition, Challenge Upgrade™ options allow you to customize Ace Programmer™, keep track of your students' progress, and add your own assignments directly to the program. Here are a few samples of Custom Assignments you might want to use:

Printing Numbers

Write a program that prints your age in days.

Save

Write a one line program and save it on the disk under the name "ROSCOE".

More Printing

Write a program that prints your name in flashing letters.

Tabs

Write a program that prints the numbers 1 to 10 in column 20.

The Input Command

Write a program that asks for a person's name when run and then puts the name into the variable 'NAME$'.

The For-Next Command

Write a program that makes the computer beep once every 10 seconds.

Functions

Write a program that divides one number by another and then prints just the whole number part.

Lores Graphics

Draw a box on the low resolution graphics screen.

Hires Graphics

Draw a triangle on the high resolution graphics screen.

Formatting and Catalog

List the names of the files on side 2 of the Ace Programmer disk.

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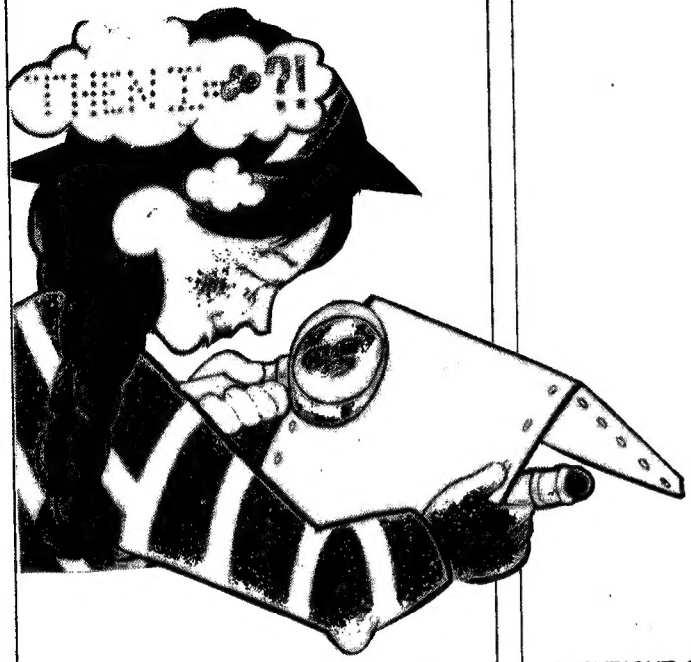
Challenge Upgrade Password:

1234

<RETURN>



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